



Open Access in France : current status and future trends

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outline

- Evolution of the French research system
- Open access :
 - where are we now : institutional repositories, national archive, open publishing.
 - Challenges we are facing

Organisation of Research in France

- 42 000 researchers and engineers in public research organisations :
 - CNRS - Centre National de la Recherche Scientifique **multidisciplinary**
 - CEA – Commissariat à l’Energie Atomique
 - INRA - Institut National de la Recherche Agronomique
 - INSERM - Institut National de la Santé et de la Recherche Médicale
 - INRIA - Institut National de Recherche en Informatique et en Automatique
 - CNES – Centre National d’Etudes Spatiales
 - CEMAGREF - Centre national du Machinisme Agricole, du Génie Rural, des Eaux et Forêts
 - IFREMER - Institut Français de Recherche pour l'Exploitation durable de la Mer
- 51 000 researchers and engineers in
 - Higher Education institutions : 85 universities + « grandes écoles »

Outputs

- Budget : 13 b € in 2004 (global R&D budget 35 b€)
- 93 000 researchers (includ. PhD students) who produce ~ 70.000- 90 000 documents/year
- French publications account for 13.6% (Europe) and 4.7% (world)
- By disciplines :
 - Biology : 4.8%
 - Medical research : 4.5%
 - Applied Biology : 3.7%
 - Chemistry : 4.5%
 - Physics : 5.2%
 - Earth and Universe Sciences : 5.0%
 - Engineering : 4.3%
 - Mathematics : 7.1%

Evolution of the research system

- New law governing universities :
 - Freedom, autonomy, responsibility
 - New rules governing joint labs

- Restructuring CNRS : more thematic autonomous institutes
 - Already existing IN2P3 (Nuclear and Particles Physics) and INSU (Universe sciences)
 - More to come in Life Sciences, Social Sciences and Humanities, Engineering,...

- Merging universities to create bigger and more visible entities

Direct impact on the way organisations are re-thinking their visibility and managing their research publications dissemination. If journals were more promoting the scientists, open archives are used to promote and make visible the research organisations they belong to.

Some new key bodies

- ANR (Agence Nationale de la Recherche)
 - Goal : foster the transfer of public research results towards the industry
 - Call for tenders, call for proposals, permanent open calls
 - Budget for 2008 : 955 m€
 - Political trend for research : more project-driven, more finalised
 - OA support : all scientific outputs produced under funded research in open access (deposited in HAL)

- AERES (Agence pour l'évaluation de la Recherche et de l'Enseignement Supérieur)
 - Research organisations assessment
 - Research units assessment
 - Validation of researchers activities assessment procedures
 - Should take into account publications deposited in IR

Examples

- ❑ Open access publishing
- ❑ Scoap3
- ❑ Retrodigitization programmes with on line OA

- ❑ Open Archiving : HAL



Open publishing

- ❑ Portal launched by CLEO (Centre pour l'Édition Electronique Ouverte), a collaboration between CNRS, EHESS, Universities of Avignon and Provence.
 - ❑ Open Access to peer-reviewed journals in Social Sciences and Humanities.
 - ❑ Some restricted access to content if moving wall requested by journal?
 - ❑ Documents are also deposited in HAL, for long term archiving purpose.
 - ❑ Respect of journal identity, editorial policy and autonomy.
-
- ❑ Open access publishing : IN2P3 involved in SCOAP3

Journals retrodigitization programmes

□ Persée

- Operated by the University of Lyon2 under the umbrella of the ministry of Higher Education
- On line access of SS&H academic journals
- Open access with a moving wall
- Highly used service : to be replicated



Open archiving : HAL history...

- ❑ An existing open archive platform since 2001
- ❑ 2003 : CNRS and Inserm signed the Berlin declaration

- ❑ But no real interest and support for OA from policy makers, researchers and even librarians : raising awareness is a very slow process...
- ❑ Development of institutional portals (INRIA, Inserm), communities portals



signature of a Memorandum of Understanding
19 July 2006

associating French Higher Education Institutions, through the *Conférence des Présidents d'Universités* and the *Conférence des grandes Ecoles*, and research institutions :

CNRS - Centre National de la Recherche Scientifique

INRA - Institut National de la Recherche Agronomique

**INSERM - Institut National de la Santé et de la
Recherche Médicale**

**INRIA - Institut National de Recherche en Informatique
et en Automatique**

**CEMAGREF - Centre national du Machinisme Agricole,
du Génie Rural, des Eaux et Forêts**

**IRD - Institut de Recherche pour le Développement
Institut PASTEUR**



A major political step

- A national cooperative approach :
signatories represent more than 80% of the researchers
- Ministry of Higher Education and Research acting
as an umbrella organisation
- To develop/maintain a shared platform for open archiving
French research outputs
- steered by a Strategic Committee (COSTRA) and
- a Scientific and Technical Advisory Committee (COST)



A shared platform based on HAL

- ❑ Direct Scientific Communication
 - According with researchers practices
- ❑ Direct (Web interface) or indirect depositing (Web services)
- ❑ Long term preservation (agreement with CINES, the higher Education Computing Center)
- ❑ Participating to the international repositories network
- ❑ Room for institutions visibility
 - ❑ Local repositories/HAL connection



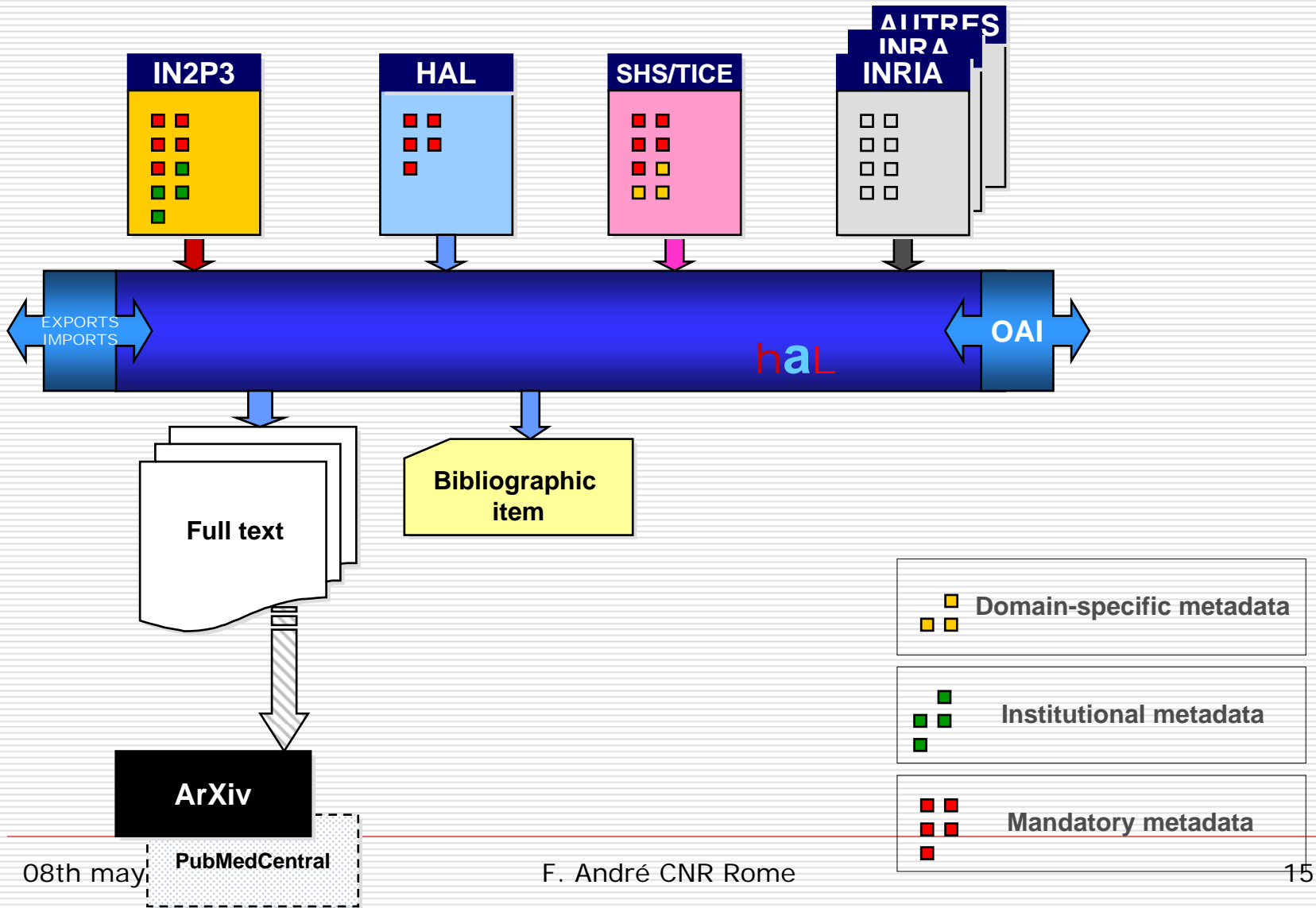
Local repositories and HAL

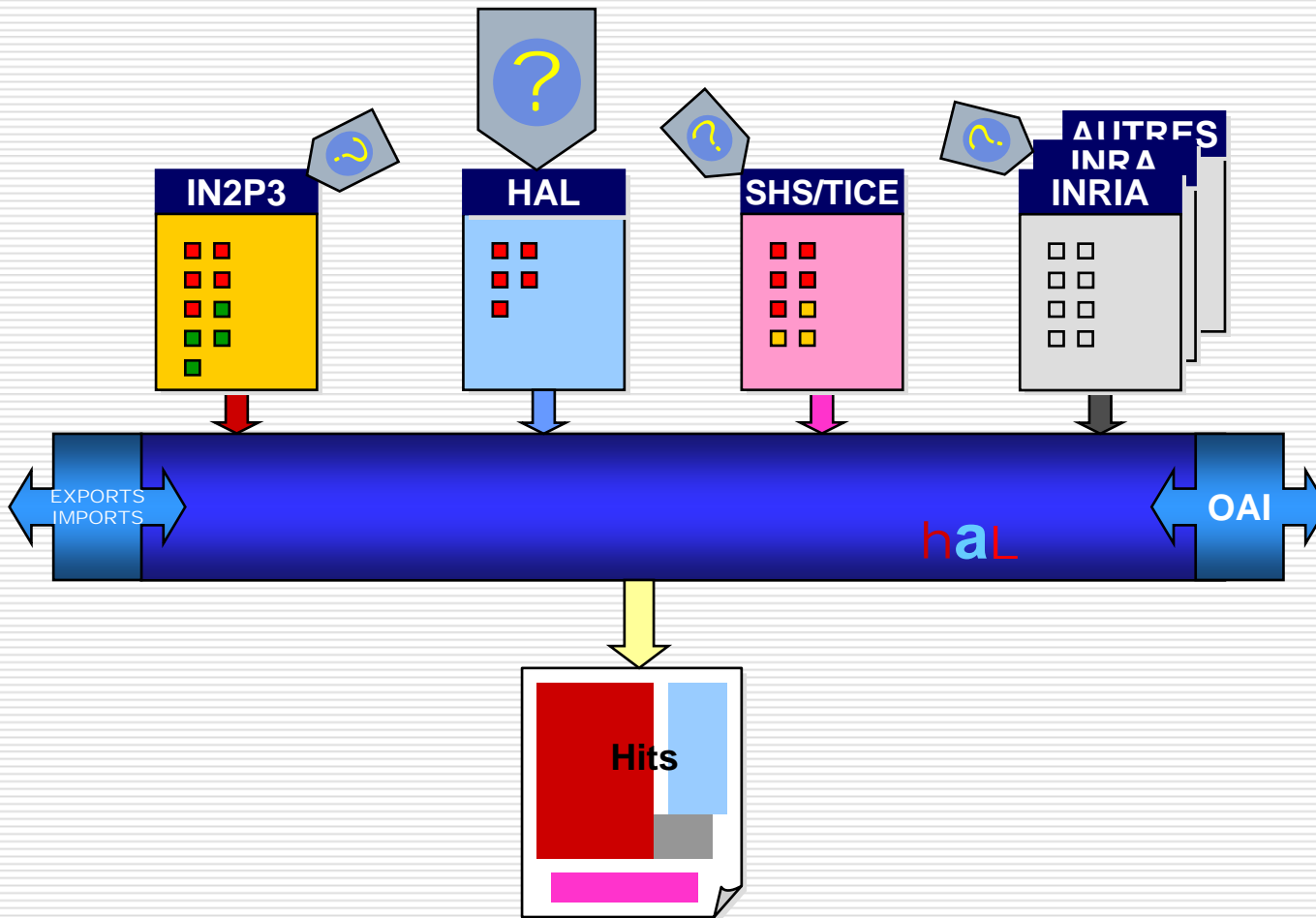
Local repositories

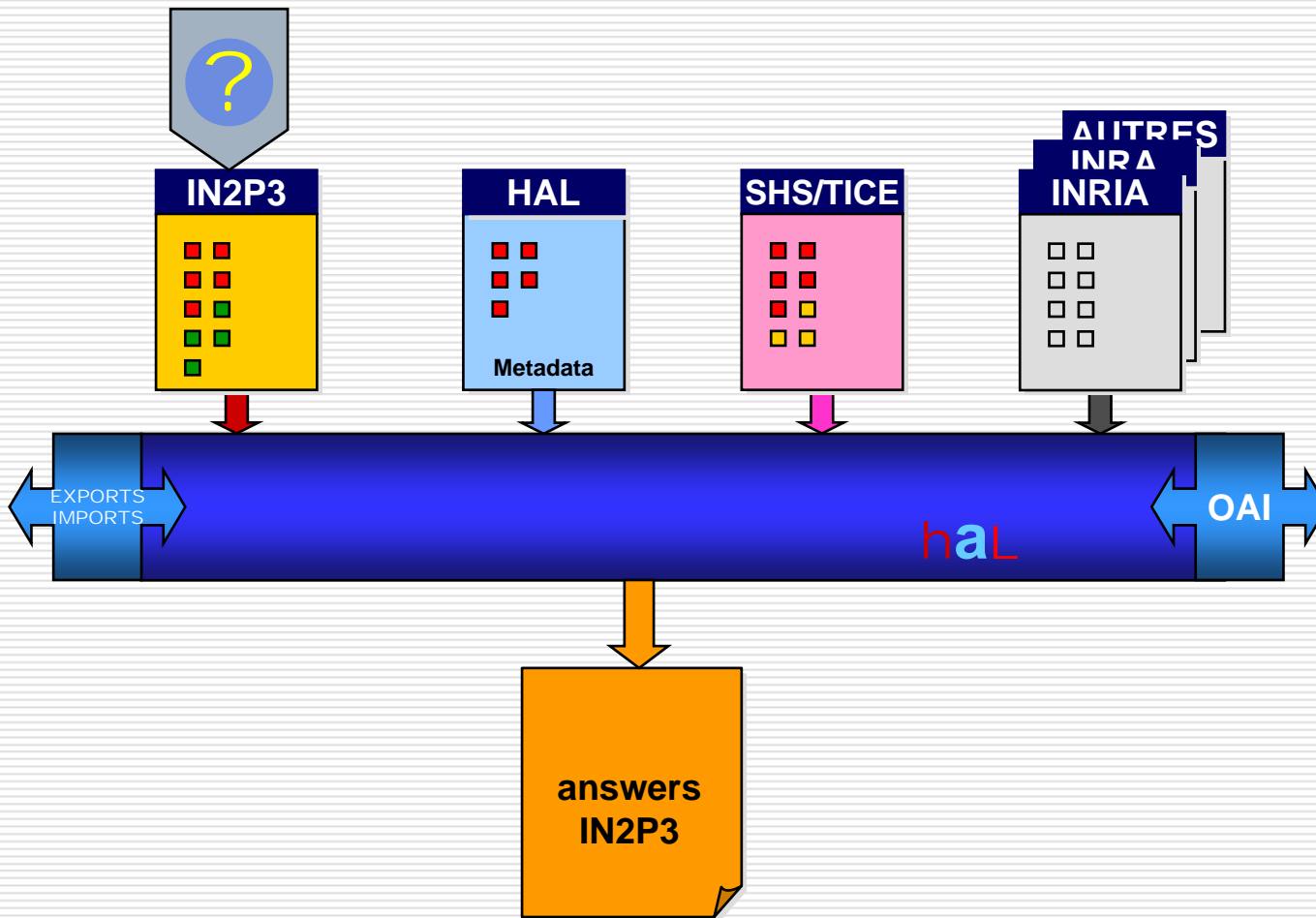
- Scientific publications + internal reports + videos + e-courses + ...
- Combining Open access and restricted access
- Making visible the patrimony of universities
- Participating to regional or thematic federations (virtual universities) based on OAI harvesting

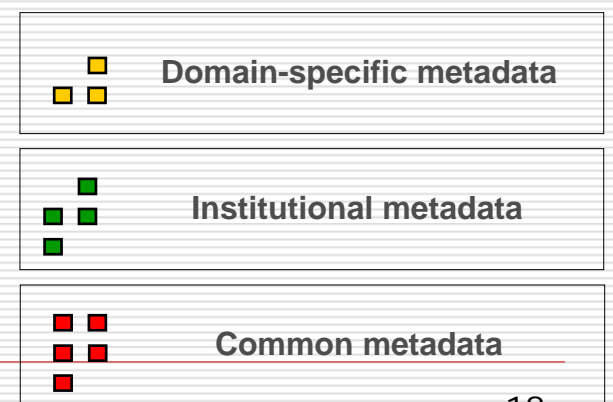
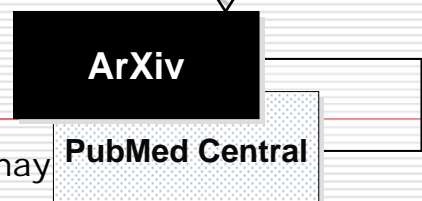
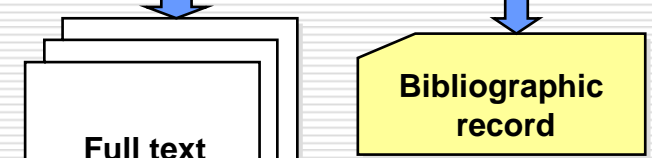
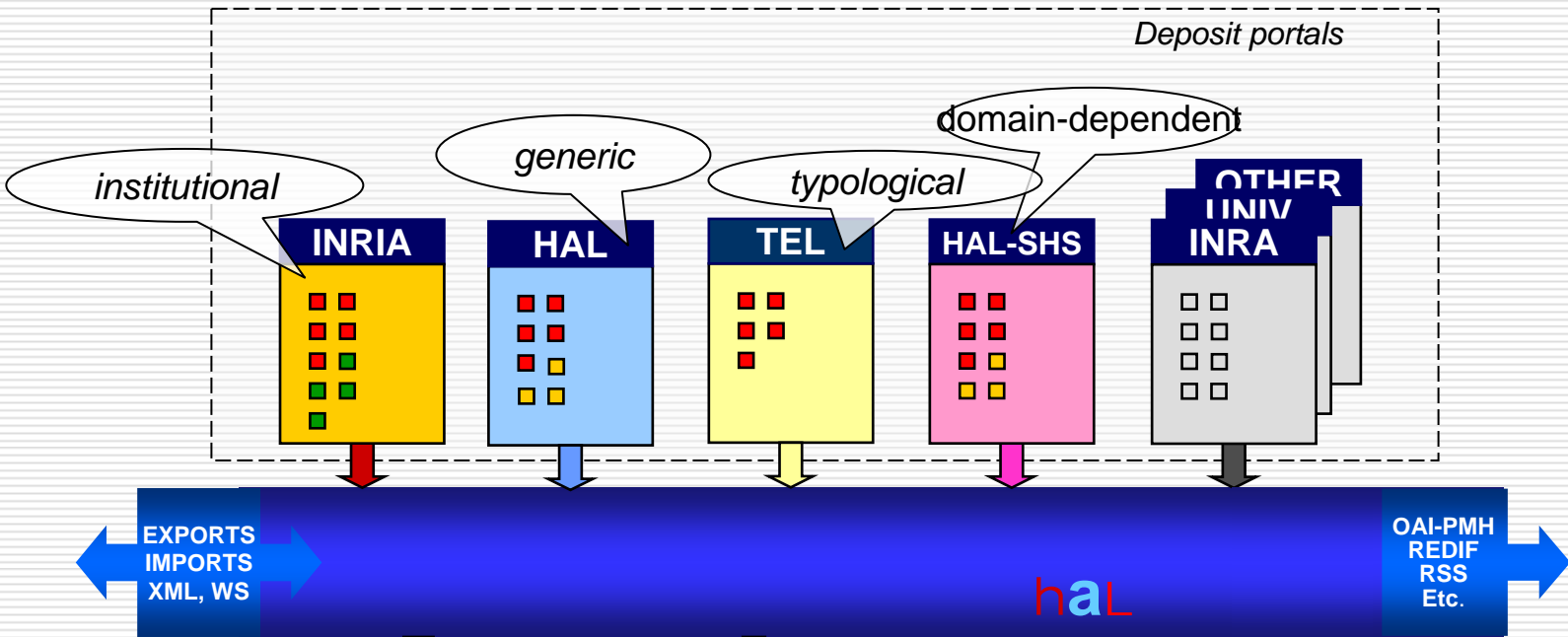
HAL

- Scientific quality control
- Shared nomenclatures
- Connected to international repositories (PubMedCentral, ArXiv)
- Focusing on the publication not on the institution valorisation
- Research process oriented









08th may

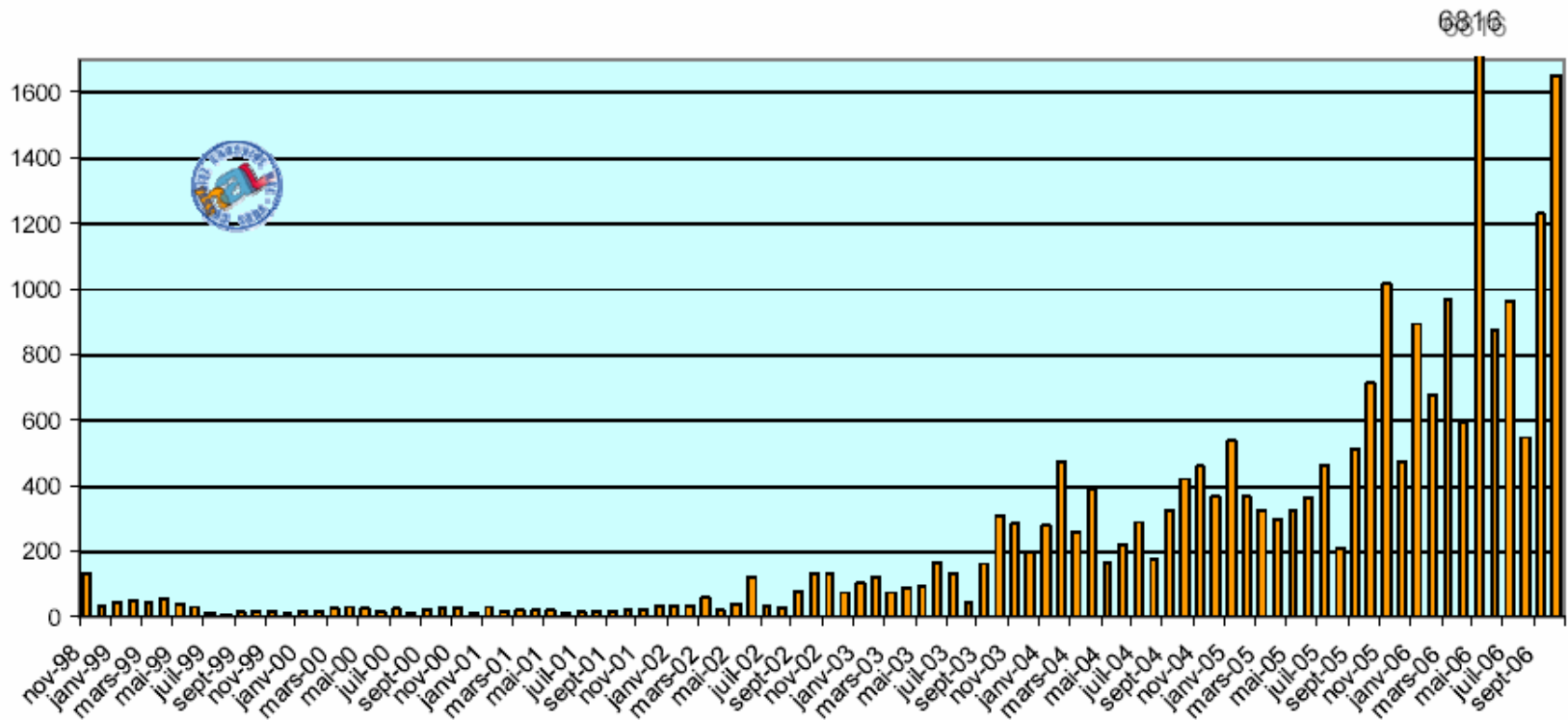
F. André CNR Rome



Services offered

- Searching and open access to scientific documents.
- Automatic retrieval of publication lists.
- Customized alerts defined by the research scientists themselves.
- Automatic duplication of documents in other open archives such as ArXiv or PubMed Central.
- Exchangeability and interconnectability with institutions' information systems.
- Creation of interfaces enabling institutions to create their own environments.
- Collections building to select, enhance and retrieve the output of a laboratory, a team, etc.

Full-text deposits in the whole archive





Visibility of research papers : HAL/PubMedCentral linking

- Inserm/NCBI cooperation
- Inserm papers forwarded to PMC if eligible :
 - Pubmed ID and pubdate mandatory
 - Respect of the embargo period
 - Only Full Texts in English
 - Metadata uploaded from Medline
- Achieving several goals : archiving nationally, giving access at the point of use, promoting the institution, high quality of metadata,...



Journal List > HAL Author Manuscripts

- Abstract
- Full Text
- PDF (554K)

Related material:
PubMed related arts
GO

- PubMed articles by:
- Lucas, A.
 - Kremer, E.
 - Hemmi, S.
 - Lazennec, G.

- Top
- Abstract
 - Introduction
 - Materials and Methods
 - Results
 - Discussion
 - References

- Top
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Manuscript deposited in HAL

Comparative transductions of breast cancer cells by three DNA viruses

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HAL-AO

Abstract

Defining the ideal vectors to transduce breast cancer using viruses is currently under intense pre-clinical evaluation. Our study constitutes the first direct comparison of the infection efficiencies of a human serotype 5 (Ad5), a canine serotype 2 (CAV-2) adenovirus, and a human serotype 2 adeno-associated virus (AAV-2) in breast cancer cells. We observed an excellent infection efficiency for Ad5 vector, whereas both CAV-2 and AAV-2 vectors lead to low infection of these cells. Real-time PCR, flow cytometry and antibody blocking studies suggest that Ad5 and CAV-2 infection ability is not strictly dependent on coxsackie adenovirus receptor (CAR) or α_v integrin levels. In conclusion, our data suggest that human adenoviruses are excellent transducers of breast cancer cells, though it may be difficult to predict the extent of infection solely on CAR or α_v integrin levels.

Keywords: Base Sequence, Breast Neoplasms, genetics, pathology, virology, DNA Primers, DNA Viruses, genetics, physiology, Humans, Transduction, Genetic

Keywords: breast, cancer, adenovirus, adeno-associated virus

Introduction

Breast cancer is one of the leading causes of gynaecological cancer mortality in western countries. Approximately 10% of women will suffer from breast cancer within their life-span (1), where two thirds of tumors are estrogen-receptor (ER) positive. Endocrine therapy contributes significantly to prolonging the disease free period post surgery of only 50%.



What's next ?

- Still a lot of do
 - Need a formal political structure
 - Need a multi-institutions technical body
 - Need more resources (dedicated staff)
 - Take into account research data
 - Mandating deposit ?

- positive signs
 - Trend of the deposit curve
 - Other public research organisations joined the agreement

- But
 - Despite a stronger OA commitment, current re-organisation of the research system will probably slow down the development of a national policy.

Some final remarks...

- ❑ Open archiving and open publishing are complementary.
- ❑ Open Access, publishing and archiving, is used to maximise impact of research results.
- ❑ Publication costs are research costs.
- ❑ OA is not costless. But only reasonable costs are compatible with public research budgets.

Thank you !



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